

**A LOW DIELECTRIC SEMICONDUCTOR DEVICE AND PROCESS
FOR FABRICATING THE SAME**

ABSTRACT OF THE DISCLOSURE

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A process for fabricating a low dielectric constant semiconductor comprising the steps of: depositing a first metal layer on a substrate; patterning the first metal layer to produce a patterned first metal wiring; applying a first insulating material onto the patterned first metal wiring to form a support structure; patterning the first insulating material by a contact printing process; 10 depositing a second insulating material of lower dielectric constant onto the support structure; planarizing the second insulating material; depositing a polish-stop film layer over the planarized second insulating material, thereby forming a plurality of metal studs; depositing a second metal layer onto the polish-stop film 15 layer forming interconnects with said studs; and patterning the metal layer to produce a second metal wiring interconnecting to the first wiring via the metal studs.